

March, 1990

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# CATS



# NEWSLETTER

The Official Journal of the Capital Area Timex/Sinclair Users Group

## Presidential Ramblings

Dissertation of a Draftee:

Elsewhere you will read that I, Ruth Fegley, was elected to serve the unexpired term of the Presidency of CATS. When drafted by the Executive board just prior to February's General Meeting I had not yet received my Newsletter. Had I read Hank's poignant description of the type of person he believed is needed to rescue CATS, and realized that almost every single member had been contacted and spurned the leadership role, I might not have succumbed to Ted's nomination!

The Executive Board expressed no fears that disbanding CATS is in the offing should no one assume leadership, but it was agreed that central direction is preferable to a rotation of responsibility. Therefore, when I was assured of support at least from those present, I accepted the nomination and was elected to the office at the General Meeting.

I assure you that I plan no radical changes. I also know full well that our survival depends on the continued dedication of those members whose Sinclair expertise has enabled George Rey to schedule informative programs month after month after month. Vernon's dedication as N.L. editor is another vital part of our continued existence. Hopefully none of this support will disappear.

All this is to say that I will do my

utmost to provide coordination if the membership maintains interest and support. Many of you are aware of my penchant for a more business like approach to the organization, so don't be surprised if this aspect surfaces. But I promise not to even try to encroach on the well established parameters of the mission of CATS. Just keep in mind that I probably will ask for YOUR help and that I will expect YOUR acceptance of some type of responsibility for the continued well being of the group which has sustained our interest for so long.

In closing, may I remind you of the 1990 SINCLAIR COMPUTER Exposition to be held in Milwaukee, Wisconsin, June 1, 2, & 3rd. Info from Bill Heberlein, 5052 N. 91st Street, Milwaukee, WI 53225, or call: Neal Schultz evenings at (414) 353-4522. Would renting a van to share travel expenses entice you to go?



## February Meeting Presidents, BBS's and Compilers

The February meeting covered a lot of ground. Those of you that read last month's Newsletter may remember that we were looking for an interim president. Well, we got one! Ruth Fegley volunteered for the post, and she was unanimously voted in by the members present. We're already feeling the effects of her presence: I got a nice note reminding me that since Hank hadn't been at the meeting, he wouldn't be able to write this report! In the presentations section, Tom Robbins showed us some of the ins and outs of QLiberator. It's not a bomber; it's just a method to get speed and multitasking out of SuperBASIC: two things you don't usually associate with BASIC programs. Attention and praise was focused more on his use of QLib. than on the compiler itself. He's come up with a few tricks, such as a program to run behind Abacus that offers several extended functions. The program creates a text entry mode that makes entering columns of text MUCH easier, as well as a pop-up calculator that can transfer a result back into a cell (including customized advanced math functions). In the second half, I gave folks an overview of the BBS, and how to move around within it. It was well recieved, and I hope we'll be getting more calls from members. For some that must work on Saturday, it is the only interactive contact they can have with the club. It offers a flexible path for sharing

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### EXECUTIVE COMMITTEE MEETING

There will be an Executive Committee meeting on Saturday, March 10th, at 1 PM in the "Cloak Room".

### KEY DATES

#### MARCH

10 General Meeting  
30 April newsletter  
DEADLINE

#### APRIL

14 General Meeting  
16 IRS Day-TAXES DUE

## FROM THE EDITOR...

### New phone and address

If you will look at the back page you will see that I have changed my telephone number to (703) 978-2357. I finally decided to get a dedicated line for my computer, so I will use this for newsletter business as well. Next month the CATS post office box will switch from Virginia to Maryland. This will put it closer to Joe Miller and enable him to be more up to date with the exchange newsletters.

### Looking back

In looking back over my tenure as editor--it seems like yesterday (really August, 1987) when I sat in John Riley's kitchen up in Severn and learned how to paste up copy--I've seen quite a few changes take place, both in the newsletter and in the Group. While the newsletter changes have been more evident, the changes in our group are certainly more fundamental and far reaching. Attrition continues to downsize the group, however, those that remain seem more committed to the Sinclair scene. Leadership has passed from the "gurus" to the "grunts", yet it still is characterized by dedication and a positive attitude to keep going. Five years is a long time to be active after the plug is pulled. No other orphan computer's supporters are as active as are Sinclair's. So where do we go from here?

### Looking forward

I have a feeling that we will be seeing no more new software for the QL. Oh, maybe a few releases from the UK software boutiques, but nothing major. The base just won't support that kind of effort. What we will see is home brewed applications, many very modest ones along with the big ones from outfits like EMSOFT. Most will be Public Domain mixed in with a few Shareware releases. This will really be a grim scene. Right? Wrong.

Wrong. Wrong. Right now each one of us has, with just the 4 programs from Psion, some of the most powerful, albeit scaled down versions, software ever developed. Lotus 1-2-3, dBase III, pfs:Write. Sound familiar. They ought to since they are the blockbuster programs that the PC made famous. And we got them for FREE! Rather than wait around for someone to bring out a new program to do a particular job, we will get a chance to see how to use what we have to do the same thing. Self reliance that will be the key. Which brings me to my next observation.

### Where do we fit in?

Everyone better get a modem and get familiar with how to use it. I foresee that many programs will reside on a user group's BBS, waiting to be downloaded. We will continue to publish programs in our newsletter but, if you had the option of spending 10 minutes on a bulletin board or 5 hours keying in a

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### Submissions to the newsletter should conform to the following criteria:

Column width no greater than 2 3/8". QL users should submit their articles on microdrive cartridge or floppy disk. TS 1000 or 2068 based articles should be hard copy. All authors should consider sending their articles to the newsletter via the CATS BBS, (301) 588-0579.

### Our mailing address is:

CATS  
P.O. Box 467  
Fairfax Station, VA 22039

# *hothourri*

## *news around the beltway*

### **Ruth Fegley Assumes Leadership of CATS**

RUTH FEGLEY, longtime CATS activist, agreed at the last Executive Committee meeting to assume the vacancy in the group's Presidential Suite left by the resignation of BILL BARNHART in November.

After serving almost a year and a half as CATS' chief executive, Bill found his real job in the world of S&L regulation suddenly more demanding (surprise!). Hence, a retrenchment in extra-curricular activities became necessary for him.

TED OSHEROFF, chairman of the Executive Talent Search Committee, was elated when Ruth agreed to become President of CATS. During his recruiting, Ted had made the rounds of the membership, talking to practically every individual in the club at one time or another. He said he probably knows more people by name than anyone else in the group. Next, he says he wants to connect the names and the people.

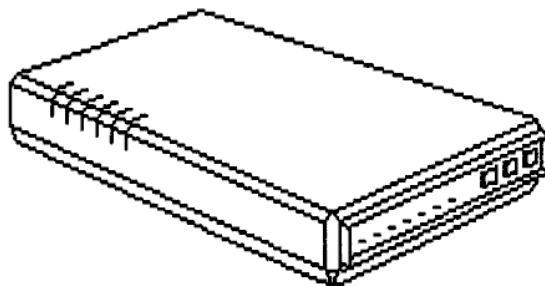
"I'm happy to volunteer to fill the position as interim president of CATS", Ruth said recently. "When the current term expires on June 30, 1990, we will be able to see more clearly what may happen as regards the future."

Ruth, who resides in Baltimore, was one of the earliest members of a newly-minted CATS when it emerged from several predecessor groups in 1983. For almost five years she managed the pivotal post of Treasurer of the organization. Under her stewardship, CATS emerged from a state of fiscal

anemia to that of robust financial health, making it the envy of practically every user group in the country.

In addition, AUDREY CURNUTT has graciously agreed to complete Ruth's term as the group's Recording Secretary. Besides leading the highly-acclaimed CATS ComputerFest last spring, Audrey has served for many years as a member of the CATS Executive Committee. She and her husband, Bob, have been faithfully preparing the newsletter every month for delivery to the US Postal Service, whenever and wherever it becomes available for mailing.

We are all most grateful that Ruth is our new leader and that Audrey will be handling her old job on the Executive Committee. We look forward to a successful interim term, which will hopefully be just the prelude of some great things to come!



*February meeting recap-From page 1*

questions and solutions - to say nothing of programs! But it can only work with the cooperation, AND USE, by the members. For the March meeting, I'll be covering Terminal programs for the 2068 and QL, and connections to MODEMS, and the BBS. If you've got a problem in the hardware, bring it to the hardware meeting, and we'll have a look. COME ON DOWN!

### **Things are Rolling! BBS report for March by Mark Fisher**

The BBS is off to a good start! We got "on the air" just before presstime last month. Phoenix Pete put the news of the BBS on the Sinclair FIDO Echo, and we've been getting calls from all over the country. Aside from welcoming new callers, last month has been spent working on the various glitches that have cropped up. The first priority was Xmodem. This is a file transfer protocol which will allow 99.8% assurance that the files uploaded are correct. I'd been holding off 'till the BBS was working, but it turned out that it was the simplest of the programs to install. OK, but CPM is a cold world to land in, confronted by a lone B4 in the corner of the screen. I had an alternate CPM front end, that would allow recall of commands, and easier movement between user areas (CPM's sub-directories).

Unfortunately, it used the same command paths that PBBS did. When a user asked to go to CPM, command was branched to PBBS again, in the area where the caller was asked for the password. Since it had been jumped into from another point, there was no password

that would satisfy PBBS. I scrapped the "improved" command processor. Next, I looked at another way to make the transition to CPM as painless as possible. CPM has a utility called "SUBMIT", that allows a sequence of CPM commands to be run, taking its commands from an ASCII file. I wrote up a list of commands, showing how to view the contents of a given User area, and

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# from where I sit

I have received a long letter from David Hartman, who I took to task in last month's column, over his efforts to get his money's worth from TDM/Tim Woods. David makes several points which are well taken. First, that Tim's lack of communication was really his downfall. To that, I will certainly have to agree. I feel that he could have defused the animosity that has built up if he had been timely in letting people know what was going on. TDM had a BBS, but if you don't reply to messages, it, too, is worthless. From what I've heard, sending Tim a message by any means was the equivalent of throwing matter down a black hole. Perhaps we can all learn by Tim's experience as to the importance of timely communications. Certainly Tim's cavalier treatment of the people he owed (subscribers and advertisers) was not the correct behavior. David's second point was that, individually, Tim may not have owed very much to each person; however, collectively, this amount may have been very large. I will agree that is is neither ethical or moral to fold up shop and walk away without trying to refund the unused subscriptions and the unpublished advertising. Tim's VERY late recent edition had at least one ad which was time sensitive. Merely publishing an ad doesn't relieve the publication of the obligation to refund the advertiser's money. If I place an ad for a "summer clearance sale" and it doesn't run until Christmas time, have you satisfied your obligation to me as an advertiser? I think not.

David's contact with the Justice Department was born out of the frustration of coming up short on repeated attempts to contact TDM. My piece was no doubt

colored by my unsuccessful effort to get a reply to my first BBS message to David. To his credit, David said he made numerous unsuccessful attempts to log on to answer my query. My questioning of his course of action was also tempered by experience. If a company wants to stiff you they can and will, no matter what judicial agency you contact. In cases like TDM, the amount usually requires prosecution in the Small Claims Court and then, if you win, you must enforce the judgement. These activities are almost impossible to do if you are 2,500 miles away. One must hope for voluntary restitution. Furthermore, to my way of thinking, the marketplace will take care of TDM. If TDM were a person, it would be in a hospice for the terminally ill. It's credibility is shot. What advertiser would place an ad not knowing when, or if, it would ever run? The same goes for subscribers. TDM is dead; however, it may take a while for the head to realize that the heart is no longer beating.

I am of the opinion that Tim Woods has only two courses of action. First, he can scrape up, beg, or borrow enough money to refund the unused subscriptions and paid ads. The converse is to close the doors, declare bankruptcy, and keep the money. The former way ends things cleanly and allows Tim to stand tall. He would have done the right thing. The latter course of action makes some money for the lawyers, is messy, and stifles all of Tim's supporters over the years. Some would argue that there is a third avenue, continue the publication of TDM. I think not. It's best to end this farce. Given Tim's track record, anyone spending any further money on TDM should expect to lose it. Put your money in the hands of one of

the existing publications, at least they haven't ripped you off.

How many of you read my January column which contained an evaluation of Digital Precision's Professional Publisher? Well, I'd like some feedback from you. How many of you use dtp software (2068 or QL) to publish fliers, newsletters, and the like? What program are you using? What do you like about it and what would you change if you could?

For quite a while, I've been wondering how long it would take for another low priced computer to come on the scene. Certainly not a derivative of the QL. While Amstrad retains the QL rights, no new computer will have a QL genesis. While \$1500 isn't exactly cheap, if the machine came with a color monitor, 1-2 MB RAM, single disk drive, and a 20-40MB hard disk, I'll bet you'd agree that \$1500 wasn't so much after all. Well the Macintosh rumor mill is posing this configuration, and some other goodies, as the "Mac Classic". While Apple has been silent on the matter -- maybe after all of the personnel shakeups, they just can't figure who's supposed to be the company spokesman-- those that are very well connected seem to think that Apple will be forced to bring out such a model if it wants to retain the low end of the market now being held by the very long in the tooth Apple IIGS.

But what of the future for the QL? Next month I will explore various ways you can insure that your machine perks along until YOU want to give it up.

# Keeping track of your Savings Bonds by Chuck Spann

1 REM BOND program, by Chuck Spann (c) 1990 pub domain

2 CLS  
: PRINT "Start new listing  
ENTER 1""Continue existing list  
ENTER 2  
"

3 PRINT "Print existing list  
ENTER 3""Hard Copy of list  
ENTER 4"  
""To SAVE/LOAD list ENTER  
5""Edit single entry ENTER  
6""Delete a  
n entry ENTER 7""Exit to  
Basic ENTER 8"

4 PRINT "DO NOT ""RUN""  
DATA WILL BE LOST!"

5 INPUT z  
: LET ct=0  
: LET co=0  
6 IF z=1 THEN GO TO 15  
7 IF z=2 THEN GO TO 300  
8 IF z=3 THEN GO TO 500  
9 IF z=4 THEN GO TO 600  
10 IF z=5 THEN GO TO 1000  
11 IF z=6 THEN GO TO 1200  
12 IF z=7 THEN GO TO 1600  
13 STOP  
15 DIM a\$(150,18)  
18 LET m=1  
20 FOR m=m TO 150  
30 CLS  
: PRINT "Current entry = ";m  
35 PRINT  
: PRINT "Enter AMT, Issue Date,  
Serial No"

36 PRINT  
: PRINT "AMT must be 3 digits  
(050, 100, etc)"  
37 PRINT "Enter Issue Date as 4  
digits (MMYY)"

38 PRINT  
39 PRINT "TO EXIT TO MAIN  
MENU, ENTER 999 FOR THIS  
BOND"

40 INPUT p\$  
45 LET a\$(m)=p\$  
50 IF a\$(m,1 TO 3)="999" THEN  
GO TO 800  
55 CLS  
60 NEXT m

301 PRINT "There are ";m;"  
entries."  
310 LET m=m+1  
320 GO TO 20  
499 GO TO 1  
501 CLS

: PRINT "Enter current month  
(MM): ";  
: INPUT x  
: PRINT x  
: PRINT "Enter current year (YY):  
";

: INPUT y  
: PRINT y  
: PAUSE 100  
: CLS  
: PRINT "There are ";m;" bonds  
listed."

505 PRINT  
506 PRINT "ISSUE"  
507 PRINT "NO AMT DATE  
SERIAL NO CURR \$"

508 PRINT  
510 FOR i=1 TO m  
515 GO SUB 2000  
517 LET ct=ct+cv  
518 LET co=co+e  
520 IF i<10 THEN PRINT " ";i;"  
";a\$(i,1 TO 3);" ";a\$(i,4 TO 7);"  
";a\$(i,8 TO 18  
);" ";cv

: IF i<10 THEN GO TO 530  
525 PRINT i;" ";a\$(i,1 TO 3);"  
";a\$(i,4 TO 7);" ";a\$(i,8 TO 18);"  
";cv

530 NEXT i  
535 PRINT  
: PRINT "Current total value =  
\$";ct

536 PRINT "based on minimum  
guaranteed interest rates as of  
";x;" / ";y;"."

537 PRINT  
: PRINT "Total purchase cost =  
\$";co

: PRINT "Total interest gain =  
\$";(ct-co)

540 PRINT  
: PRINT "To return to MAIN  
MENU enter""y""

545 INPUT c\$  
550 IF c\$="y" THEN GO TO 1  
601 LPRINT "There are ";m;"  
bonds listed."

610 LPRINT  
: LPRINT  
618 LPRINT "ISSUE"  
620 LPRINT "NO AMT DATE

SERIAL NO CURR \$"  
630 LPRINT  
640 FOR i=1 TO m  
642 GO SUB 2000  
645 LET ct=ct+cv  
647 LET co=co+e  
650 IF i<10 THEN LPRINT " ";i;"  
";a\$(i,1 TO 3);" ";a\$(i,4 TO 7);"  
";a\$(i,8 TO  
18);" ";cv  
: IF i<10 THEN GO TO 660  
655 LPRINT i;" ";a\$(i,1 TO 3);"  
";a\$(i,4 TO 7);" ";a\$(i,8 TO 18);"  
";cv  
660 NEXT i  
665 LPRINT  
: LPRINT "Current Total Value =  
\$";ct  
667 LPRINT "based on minimum  
guaranteed interest rates as of  
";x;" / ";y;"."  
: LPRINT  
668 LPRINT "Total purchase cost =  
\$";co  
: LPRINT "Total interest gain =  
\$";(ct-co)  
: LPRINT  
: LPRINT  
670 GO TO 1  
799 STOP  
800 LET m=m-1  
810 GO TO 1  
1001 CLS  
: PRINT "To SAVE the current list  
type""s""  
: PRINT  
: PRINT "To LOAD a stored list  
type""l""  
: PRINT  
: PRINT "To return to MAIN  
MENU hit ENTER"  
1005 INPUT d\$  
1010 IF d\$="s" THEN ERASE  
"bond.bas",  
: MOVE "bond.bas",1  
1020 IF d\$="l" THEN CAT  
"bond.bas",  
1030 GO TO 1  
1201 CLS  
: PRINT "Enter number of listing  
entry to be corrected"  
1210 INPUT n  
1220 PRINT "The current entry for  
";n;" is:"  
: PRINT a\$(n,1 TO 3);" ";a\$(n,4  
TO 7);" ";a\$(n,8 TO 18)

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1222 PRINT "Is this correct? (y/n)"
1224 INPUT t$
1226 IF t$="y" THEN GO TO 1
1230 PRINT "Enter corrected
information:"
1240 INPUT p$
1250 LET a$(n)=p$
1260 GO TO 1
1499 STOP
1500 FOR i=n TO m-1
1510 LET i=i+1
1520 LET h$a$(i)
1530 LET i=i-1
1540 LET a$(i)=h$
1550 NEXT i
1560 LET a$(m)=" "
      : LET m=m-1
1570 PRINT
      : PRINT "Do you wish to delete
any more bonds from the list? (y/n)"
1580 INPUT t$
1590 IF t$="n" THEN GO TO 1
1600 CLS
      : PRINT "Enter the number of the
bond to be deleted from this listing"
1610 INPUT n
1620 PRINT "The current entry for
";n;" is:"
      : PRINT " ";a$(n,1 TO 3);"
";a$(n,4 TO 5);"/";a$(n,6 TO 7);"
";a$(n,8 TO 18
)
1630 PRINT
      : PRINT "Is this the bond you
wish to delete? (y/n)"
1640 INPUT t$
1650 IF t$="y" THEN GO TO 1500
1660 PRINT
      : PRINT "Do you need to recheck
the main list? (y/n)"
1670 INPUT t$
1680 IF t$="y" THEN GO TO 1
1690 GO TO 1600
2000 REM Calc current bond value
2010 LET e=(100*(CODE
a$(i,1)-48)+10*(CODE
a$(i,2)-48)+(CODE a$(i,3)-48))/2
2030 LET f=10*(CODE
a$(i,4)-48)+(CODE a$(i,5)-48)
2040 LET g=10*(CODE
a$(i,6)-48)+(CODE a$(i,7)-48)
2050 LET h=(12*y+x)-(12*g+f)
2060 IF (12*g+f)<1042 THEN LET
cv=e*1.075^(h/12)
      : GO SUB 3000
2070 IF (12*g+f)<1042 THEN
RETURN

```

```

2080 LET cv=e*1.06^(h/12)
      : GO SUB 3000
2090 RETURN
3000 LET cv=(INT (cv*100+5))/100
3010 RETURN

```

**BBS Report-Continued from page 3**

commands, showing how to view the contents of a given User area, and how to up or down load ASCII files. You can see it work by typing "DEMO CPM" when you see the B4> cursor (the space between "demo" and "cpm" is important). It works pretty well, but there were some unintended "features". If a previous caller had aborted the demo, it turned out that the next few commands were left hanging in a buffer. When another caller came along and entered CPM, she or he received the pending commands, willy-nilly. It could be quite confusing! To solve this one, I added a few lines to BYE (the MODEM control program) to clear that buffer after the caller quits. The hanging commands are still there during the call, but they are cleared for the next caller at least. How To Use the BBSThe CATS BBS is actually an implementation of a standard BBS program called PBBS. It is divided into two sections, the "Main Menu" (with a command line that reads "PBBS commands...") and the "MAIL Menu" (with a command line that reads "Mail Commands..."). The main menu offers information files, lists of uploads, registered callers, recent call ins, and most importantly, the ability to change your PASSWORD and screen width. Members are encouraged to change the default password! To further motivate you, I've set the default screen width to 20. It's easy to change, but you must do it from the (U)pdate menu (I got the idea from EDITOR). The MAIL Menu offers a variety of ways to scan the message base - by folder, by header, by a word in the subject field, by addressee (you), or just by message number. If you have any messages addressed to you on the board, you will be told about them on log-in, and given a chance to reply or delete them. Please think twice about deleting messages - they may be helpful to others if they

are left on. From both menus, you have the options to (Y)ak with me (if I'm there), (J)ump to CPM (try DEMO CPM), or say (G)oodbye. If you elect to explore CPM, remember that "BYE" will always exit, and "PBBS" will return to the BBS. If worst comes to worst, just unplug your MODEM - the program will re-set itself quickly. Remember, this system is running off of a hard disk - even a system crash won't mess up the database.

**Sinclair BBSs**

*A listing of BBSs that are Sinclair oriented or have dedicated Sinclair sections*

Z-88 BBS (Gerald Lindsay): 703-968-9438 (DC metro) and is open 24hrs a day.

The Sinclair Echo. It now has 5 nodes, Portland's Bull Pen (503)652-5803, Denver's KING'S MARKET BBS (303)665-6091 and Greg Popovich's BBS in New Jersey (201)956-7703. Locally, it is carried on the CAPDUG board (301) 292-7955.

The Grey Matter BBS (213) (CALAN on PC Pursuit) 971-6260 300-1200-2400 BAUD, 24 Hr.

Time-(X)-Change BBS (213) (CALAN) 329-3922 300-1200 BAUD, 24 hr.

HI THERE FROM S.A.T.S. IN TEXAS! WE DO HAVE A PD BBS ON RETRIEVERS RETREAT BBS 8N1 AT 300,1200,2400 BAUD, 915-655-6213 RIGHT NOW THERE IS T/S 2068 PD GAMES ABOUT 200K SO FAR BUT WHO KNOWS WITH YOUR HELP? TRY US OUT IN THE ORPHAN SECTION.

TIME DESIGNS BBS. (300 baud; setting 8/1/n) (503) 824-2658 For all Timex Sinclair type systems.

Chicago Area TSUG BBS (312) 576-7072 (Bob Swoger) Logon with: LOG SINCLAIR/ GUEST

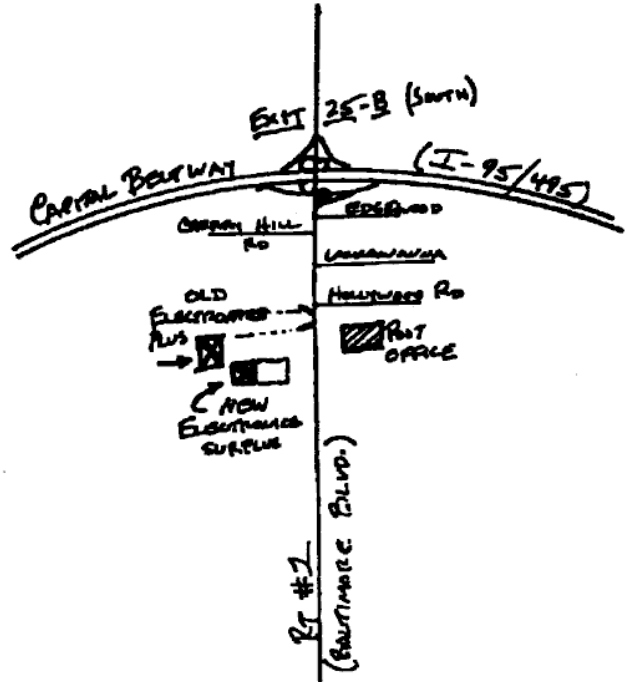


Now that Duane Parker has broadened our horizons with the Pascal Page, I thought I would try my luck with the C language. C was first developed by Dennis Ritchie at Bell Labs in the early 1970's. C was based upon BCPL and B. It was used to implement the UNIX operating system. This is why C and UNIX are so inter-related. The C compiler that I use is the Small C implementation for the QL. This can be found in the Quanta Libraries (at least it used to be). Small C was originally written up in the magazine "Dr. Dobb's Journal" and has been implemented on a number of computers. Small C for the QL comes with a compiler, linker, and library generator. The compiler is easy to use, but the manual is a bit cryptic. It is very

## C The C Column by Timothy Swenson

short on explanations. I use the editor that came with my Metacomco Pascal (Yes, I have that too). Small C supports only a portion of the full C language. Some of the advanced features are not allowed. I found that Small C was large enough for me to learn with. The two best books that I have found on C are: "The C Programming Language" by Kernighan and Ritchie (K&R), and "The Dr. Dobb's Toolbook of C". K&R is the definitive book on C. It explains the language simply. It is not recommended for beginning programmers. The Toolbook of C describes Small C as it was printed in Dr. Dobb's. It also has some programs that should run under Small C though I have not tried them. The advantages of C are small concise programs and fast executing code. C compiles as close to assembly as any other language. Next month I'll start into the details of the language.

Several months ago, January to be exact, Hank Dickson wrote an article about Bill Allen's new store, the Surplus Outlet, located adjacent to Bill's old standby, Electronics Plus. When Hank opened up his copy of the newsletter his first thought must have been, "Can't that dummy Smith get anything right. He'd destroy an anvil with a feather!" Being the gentleman that he is, Hank said nothing and suffered in silence, probably secretly vowing to never again include artwork with his articles. A few days ago, I was cleaning up my computer area. Periodically (like once a month) I have to do this so that I can find the material for the upcoming issue. I going through some disk mailers, I found one with some paper inside. A map. After putting on my glasses, I realized that the previous article had been incomplete as it had been run. While not omitted on purpose, it does give me an excuse, er, reason to use my digitizer. (That's what I like about being Editor. You get a chance to dream up uses for all the hardware/software that you just couldn't do without!) Well, Hank, here it is.



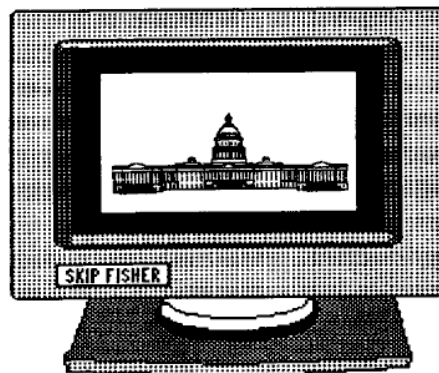
## TWEAK & TINKER

It ain't broke, why fix it? In a previous article (January and April 1989), I described the way to get rid of retrace lines when using the 2068 with a Skip Fisher RGB monitor. That earlier design had to compromise the TV/monochrome monitor output to get the best RGB. After a little messing around, I now believe we can have all 3 modes working at optimum (and

simultaneously, if we like). How? I found that adding a 10K ohm resistor did the trick! Where? From the base of Q5 to the input of the 74HC00 (where the 47K ohm goes). Anything else? Oh, yes, disconnect the 47K ohm from the Q5 and

ground it. That did it for several of the 2068s that I have modified. You might try any value from 10K to 20K ohms, if the 10K isn't handy. A little tweaking of VR-1 should bring all

modes to optimum at the same time.



## Golden Oldies from Out of the Past

### Add an ON/OFF Switch to Your QL

By John Riley

*From the December, 1987 issue*

I'll never understand what it is that Sir Clive has against the simple and convenient on/off switch. Neither the ZX81, the Spectrum, nor the QL were provided with them. Having to always be plugging and unplugging the power supply is not only bothersome, it quickly wears out the plug components!

This started happening to my QL recently, and the wear on the power supply connector expressed itself in unpredictable crashes of the computer. I called Tom Bent, who prescribed cleaning the contacts with a spray from Radio Shack and mashing the Phillips connector with a pair of pliers to get rid of the looseness that had developed.

It helped some, but the problem persisted. I don't know how it is with you, but losing a half an hour's work in an instant is a very frustrating experience for me!

I resolved to attack the source of my problem, the connector, and replace it with a switch.

Trotting over to Radio Shack again, I bought a triple-pole, double-throw switch (part# T27500661) and a little 2 1/8 x 3 1/4 inch "experimenter's box" (part# T27000230) -- total investment, \$5.23. With great satisfaction I cut the Phillips connector off of my power supply lead. The power supply was unplugged from the mains, of course! Some trimming of insulation revealed three color-coded wires, red, green, and blue. A little fooling around with a volt/ohm meter determined which wire went with which pin on the Phillips connector (see Figure 1). Next I drilled three holes in the

experimenter's box, one on top for the switch, and one on each end for the wire to pass through. Wiring the switch was a straightforward proposition, even for me!

The next big decision that I had to make was how to wire the newly-switched power supply into the QL itself. Taking the cover off the computer, I quickly realized that it would require a major disassembly to get to the portion of the motherboard that the male Phillips receptacle was soldered into. Therefore, I decided to take the easy way out -- I soldered my wires directly onto the pins of the Phillips receptacle! It was tight work, but do-able using a small-tipped soldering iron. Looking from the BACK of the QL, the wiring sequence is: blue wire to the right pin, green wire to the center pin, and red wire to the left pin. I put some small plastic tubing on the wires before I soldered them onto the pins, which when pushed up onto the finished connections provided protection and insulation for them.

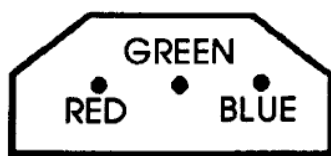
Switching on the QL (what a novel experience!), I was rewarded with the familiar power-up display. And guess what -- no more crashes! Of course, my power supply is now permanently

regulator and microdrive assemblies so that I can wire straight into the motherboard. Complete instructions for this disassembly can be found in Volume 1, Issue 1 of Quantum Levels.

Here are some trouble shooting tips if you decide to do this to your QL. Do a continuity check on your own beheaded Phillips plug to make sure that the color coding of your power supply wires is the same as mine. Be careful to avoid solder bridges

when soldering the wires to the pins. Tinning the pins first makes the soldering easier. Check the Phillips receptacle for wobbling -- if it does, "shim" it with some thin plastic between the top of the receptacle and the QL case to eliminate another potential cause for crashes. If when you power up your computer you get a deep-throated buzz from the speaker instead of the first screen, turn off the computer immediately, because you have managed to reverse the red and blue wires. If you turn it on and nothing happens, then either the red or green wire or both is not making the proper connection. If you turn it on and the computer works but your printer doesn't, then the blue wire is not making a good connection. And don't forget, your switched power supply is only switched IN FRONT OF the transformer, so don't walk away from your machine and leave the transformer cooking 24 hours a day. Get a surge protected, switched power strip to plug your entire system into, and you won't have to worry about that problem.

That's it! I like having an on/off switch on my QL! I hope that you will, too.



**Figure 1**

The receptacle on the back of the QL

wired to the keyboard, but that is OK for me since I never move it. The solder connections to the Phillips pins may prove unreliable in the long run, and if they do I will go through the bother of removing the voltage



## THE PLOTTER

One of a series of articles on  
plotter use by Pieter van Dijk

*From the March, 1988 issue*

This program prints fancy patterns to the screen or to the EPSON HI-80 plotter. The patterns are based on CYCLOIDS, or the movements of a point on a spoke of a wheel turning within another wheel. An unlimited number of different patterns can be drawn by changing one or more parameters of the procedure PATTERN. A few examples are:

```
16 525 420 410 -20 7
13 600 400 370 -30 0
1 750 510 255 -30 25
1 540 280 240 0 0
1 505 95 90 10 -10
```

Values 2, 3 and 4 should be selected in such a way that the pattern fits into the window. If values 2 and 3 have mostly common factors, one cycle of the procedure CYCLOID ends quickly (600 and 400 in example 2), if less common factors are used, it takes a lot longer (505 and 95 in the last example).

Lines 760 to 1010 are not required if this program will only be used for screen plotting.

Two more procedures are included in the program, although they have no relation with pattern drawing. These procedures are LONG-PLOT and PLOT-FILE.

LONG-PLOT shows how to plot strips longer than the maximum paper size for the EPSON plotter. The trick is to plot the maximum page size first, then initialise the plotter with the IN command, set the defaults, move to where the first plot stopped and continue from there. I use fan-fold paper to plot long graphs in this manner. The procedure gives an example, showing an extended grid.

PLOT-FILE shows how plotter output can be redirected to a file on disk, and plotted by copying the

file to SER. In this procedure LONG-PLOT is used as a program that sends its output to the file SCREEN-PLT. The file can be plotted as many times as required, without running the program.

```
100 CHOSE: DRAW
110 REMark *****
120 DEFine PROCedure CHOISE
130 CLS: AT 10,20: PRINT '0'
    OUTPUT TO PLOTTER'
140 PRINT TO 20,'1) OUTPUT TO
    SCREEN'
150 PRINT: INPUT TO 20,'PRESS 0
    OR 1'; V
160 IF V
170 WINDOW 512,202,0,0: CLS
180 SCALE 1000,-800,-500
190 ELSE
200 C=3: OPEN#C,SER
210 CLS: AT 10,20: PRINT
    'PLOTING...'
220 MA 1255,960: OR1
230 END IF
240 END DEFine CHOISE
250 REMark *****
260 DEFine PROCedure DRAW
270 REPEAT LOOP
280 CLS: AT 10,20
290 PRINT 'INPUT OF
    PARAMETERS "0" TO
    END': PRINT
300 INPUT TO 20,'NUMBER OF
    CALLS TO 'CYCLOID' :'; LEVEL
310 IF LEVEL=0: EXIT
    LOOP: CLOSE#C: END IF
320 INPUT TO 20,'RADIUS OF
    FIXED CIRCLE :'; R1
330 INPUT TO 20,'RADIUS OF
    MOVING CIRCLE :'; R2
340 INPUT TO 20,'PEN RELATIVE
    TO MOVING CIRCLE :'; R3
350 INPUT TO 20,'RATE OF
    CHANGE IN R3 :'; R3-I
360 INPUT TO 20,'STEP IN
    ANGLE OF FIXED CIRCLE :'; A-I
370 PATTERN
    LEVEL,R1,R2,R3,R3-I,A-I,A1-I
```

```
380 END REPEAT LOOP
390 IF NOT FLAG: CH: END IF
400 END DEFine DRAW
410 REMark *****
420 DEFine PROCedure
    PATTERN(LEVEL,R1,R2,R3,R3-I,
    A-I)
430 CLS: A=0: A1-I=PI/36: A2-I=R1*
    A1-I/R2
440 CR=R1-R2: A-I=RAD(A-I)
450 FOR I=1 TO LEVEL
460 CYCLOID
    A: A=A+A-I: R3=R3+R3-I
470 END FOR I
480 END DEFine PATTERN
490 REMark *****
500 DEFine PROCedure
    CYCLOID(A)
510 A1=A: A2=0
520 IF V
530 LINE (CR+R3)*COS(A1),
    (CR+R3)*SIN(A1)
540 ELSE
550 MA INT(1.92*(CR+R3)*COS
    (A1)+.5),INT(1.92*(CR+R3)*SIN
    (A1)+.5)
560 END IF
570 REPEAT LOOP
580 A1=(A1+A1-I)
590 A1=A1*(A1+2*PI)+(A1-2*PI)*
    (A1+2*PI)
600 CX=CR*COS(A1): CY=CR*SIN
    (A1)
610 A2=A2+A2-I
620 IF A2>A1: A2=A2-2*PI: END IF
630 A3=(A1-A2)
640 A3=A3*(A3+2*PI)+(A3-2*PI)*
    (A3+2*PI)
650 X-I=R3*COS(A3): Y-I=R3*SIN
    (A3)
660 IF V
670 LINE TO CX+X-I,CY+Y-I
680 ELSE
690 DA
    INT(1.92*(CX+X-I)+.5),INT
    (1.92*(CY+Y-I)+.5)
```

*Please turn to page 10*

The Plotter-Continued from page 9

```

700 END IF
710 AA=INT(1000*A)
720 IF INT(1000*A1)=AA AND INT
(1000*A3)=AA:EXIT LOOP:END IF
730 END REPEAT LOOP
740 END DEFINE CYCLOID
750 REMark *****
760 DEFINE PROCEDURE
LONG-PLOT
770 REMark C=3:OPEN#C,SER2
780 GR 251,10,600,3
790 MA 2510,0:INI:DF:MA
54,0:OR1
800 GR 251,9,600,3
810 REMark CLOSE#C
820 END DEFINE LONG-PLOT
830 REMark *****
***
840 DEFINE PROCEDURE
PLOT-FILE
850 C=3
860 OPEN-NEW#C,FLP1-
SCREEN-PLT
870 REMark *** PROGRAM WITH
PLOTTER COMMANDS ***
880 LONG-PLOT
890 CLOSE#C
900 REMark TO PLOT THE FILE
USE :COPY FLP1-SCREEN-PLT
TO SER2
910 END DEFINE PLOT-FILE
920 REMark *****
930 DEFINE PROCEDURE MA(X,Y):
PRINT#C,'MA 'X','Y':END
DEFINE
940 DEFINE PROCEDURE
GR(XU,XN, YU,YN)
950 PRINT #C,'GR 'XU','XN;
','YU','YN
960 END DEFINE GR
970 DEFINE PROCEDURE INI:
PRINT#C,'IN':END DEFINE
980 DEFINE PROCEDURE
DF:PRINT#C,'DF':END DEFINE
990 DEFINE PROCEDURE
OR1:PRINT#C,'OR':END DEFINE

```

```

1000 DEFINE PROCEDURE DA(X,Y):
PRINT#C,'DA 'X','Y':END
DEFINE
1010 DEFINE PROCEDURE CH:PRINT
#C,'CH':END DEFINE

```



## HIGH TECH MAN

1940's style

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## CORRECTION

In last month's article on Quill usage, "Quelling Crazy Quill", by Sheldon Gilbert, the next to last sentence on page 5 should have looked like this: "...Water or wasser, H<sub>2</sub>O, is essential to human life.<sup>26</sup>" This demonstrates, high and low script, bold, and underlining in a single sentence. To get from the QL to the Atari, I print Quill to disk (generate a -lis file, which is in ASCII) and then put it on an Atari formatted disk using IBM Copy. The problem is that all the special characters are stripped out when the ASCII file is generated. They must be reinserted later. I forgot to do this. I also blew it when it came to titling the article. Sheldon had titled the piece, Quelling Quazy Quill and I didn't pick up on his alliteration until I was reading the hard copy after I'd sent the newsletter to the printer. I apologize to Sheldon and our readers if any confusion resulted from my inattention.

Editorial-Continued from page 2

program, which would you choose. Also, what about those programs that are either too long or the n/I that doesn't publish those program that are on their board? If we are going to take advantage of technology, why shouldn't we avail ourselves of all of the tools? It is up to you, but with the price of 2400 baud modems down to \$75 (at the Vienna hamfest), we can't afford not to.

### What's between the covers?

This month we run the gamut of hardware and software articles for the 2068 and QL. Chuck Spann has put together a 2068

program to track savings bonds. Herb Schaaf has a further mod for the Skip Fisher monitor used with the 2068. Tim Swenson debuts as our resident C columnist. This will be monthly, so I suggest that you start following it. Mark Fisher continues his saga on getting our BBS on line. It has really been an eyecopener for me as one fails to see the massive amount of work Mark has done just to get that "Welcome to the CATS BBS" opening screen. Finally, we have a compendium of golden oldies, "The Best of the CATS Newsletter". If you have an article you'd like to see republished, let me know and I'll try to get it in. I hope you enjoy the issue.

### Congratulations, ladies

Finally, congratulations are in order to Ruth and Audrey for stepping in and helping out. It is members like them that really make this group shine.



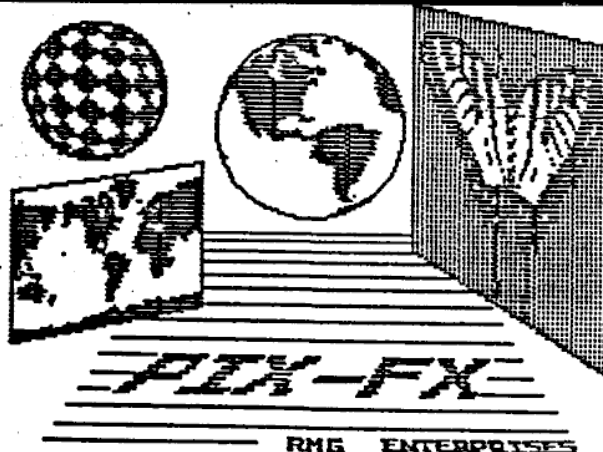
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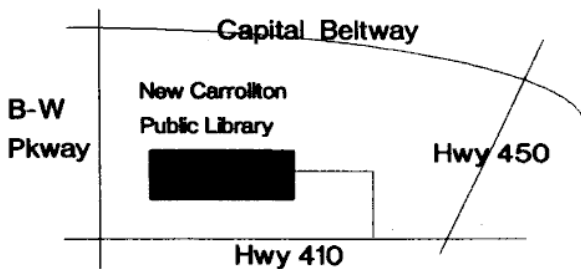
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